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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,530	04/06/2004	Laszlo J. Kecskes	ARL 03-60	4322

37064 7590 02/22/2007
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EXAMINER

WYSZOMIERSKI, GEORGE P

ART UNIT	PAPER NUMBER
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1742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/828,530

Applicant(s)

KECSKES ET AL.

Examiner

George P. Wyszomierski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 34-39 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Nothing in the specification as originally filed conveys the concept of all alloys comprising Hf, Cu and Ni in an invariant composition to one of ordinary skill in the art reading the specification. Rather, the specification as filed indicated that the invention includes metallic glass alloys which can be generally represented by a certain formula as set forth in paragraph [0008] of the specification. New claims 34-39 encompass large numbers of materials that would not be in accord with the description of the invention as set forth in the originally filed specification.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-15, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolter (PG Pub. No. 2003/0217790). This is a new ground of rejection based upon the amendment to instant claim 1.

Wolter discloses amorphous alloys comprising hafnium, copper, nickel, aluminum, titanium and niobium. The preferred amounts of titanium, niobium, aluminum, copper and nickel in the prior art alloys overlap the amounts as recited in instant claim 1; see paragraphs [0015] and [0017] of Wolter. The prior art materials may be cast in the form of plates with a bulk amorphous structure up to 0.2 inch (5 mm) thick; see Wolter paragraph [0021]. The prior art alloys may be formed by the methods recited in instant claims 30 and 31; see paragraph [0011] of Wolter.

The Wolter materials have a minimum content of 45% hafnium, as opposed to the maximum 45% as recited in instant claim 1 or 44.5% in instant claim 2, and Wolter does not specify the properties as recited in instant claims 4-6. However, these differences are not seen as patentably distinguishing the claimed materials from those of the prior art, because closely related compositions would be expected by one of ordinary skill in the art to have the same properties; see *Titanium Metals v. Banner* (227 USPQ 773, Fed.Cir. 1985).

Thus, a prima facie case of obviousness is established between the disclosure of Wolter and the presently claimed invention.

5. Claims 1-8, 11-15, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xing et al. (PG Pub. 2002/0036034).

Xing paragraph [0005] discloses metallic glass compositions overlapping or closely approximating those recited in the instant claims. The prior art materials may be made by arc melting; see Xing paragraph [0014]. The prior art discloses examples having dimensions as

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recited in instant claims 14 and 15; see Xing paragraph [0026]. Xing does not disclose any specific examples of compositions within the presently claimed ranges, does not specify the properties recited in instant claims 4-6, and does not disclose the methods of forming as specified in instant claims 30 and 31. These differences are not seen as resulting in a patentable distinction between the prior art and the claimed invention because:

a) The closely approximating compositions of Xing would be expected to have the same properties as the presently claimed materials as set forth in item no. 4 *supra*.

b) With regard to method steps, it is well settled that a product-by-process claim defines a product, and that when the prior art discloses a product substantially the same as that being claimed, differing only in the manner by which it is made, the burden falls to applicant to show that any process steps associated therewith result in a product materially different from that disclosed in the prior art. See *In re Brown* (173 USPQ 685) and *In re Fessman* (180 USPQ 524).

Thus, a *prima facie* case of obviousness is established between the disclosure of Xing et al. and the presently claimed invention.

6. Claims 1-39 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 152-160 of copending Application No. 10/946,132.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant claims and the '132 claims are directed to a metallic glass composition, preferably the eutectic Hf-base composition as recited in instant claims 16, 28, 29 and 34. While the instant claims are broader in scope than the '132 claims and recite some properties not specified in the '132 claims, the properties as claimed would appear to be

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material properties of a given composition. Therefore, from the disclosure of the specific composition in the '132 claims, one of skill in the art would believe that the attendant properties of that composition are the same in either instance.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. In a response filed November 27, 2006, Applicant notes that the previously applied Lin and Senkov references are directed to alloys that diverge substantially from the composition and/or properties required by the instant claims; thus the rejections based on these references are withdrawn.

With regard to Xing, Applicant alleges that the claimed invention possesses unexpected properties in comparison to the prior art, but only in relative terms (better,

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higher), i.e. Applicant provides no data or other probative evidence of any clear distinction between the claimed invention and the products and methods as disclosed by Xing. Thus, this rejection is maintained.

With regard to the provisional obviousness-type double patenting rejection, the response indicates that Applicants do not disclose or claim the fabrication of bulk components in the present application. However, instant claim 22 would appear to meet the definition of a "bulk component". Further, it is noted that a material in accord with, e.g. claims 158-160 of the '132 application would also appear to be within the scope of the instant claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300. This Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
CR017 1700

GPW
February 20, 2007